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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,690	06/16/2005	David A. Eves	GB020237	6582

24737 7590 05/03/2006

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EXAMINER

DOAN, JENNIFER

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/539,690

Applicant(s)

EVES ET AL.

Examiner

Jennifer Doan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-11 and 14-18 is/are rejected.
7) ☒ Claim(s) 12 and 13 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 16 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 061605.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 06/16/05, have all been considered and made of record (note the attached copy of form PTO-1449).

Drawings

3. The drawings, filed on 06/16/05, are accepted.

Specification

4. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-9 and 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Jachimowicz et al. (U.S. Patent 6,096,666).

With respect to claims 1 and 3, Jachimowicz et al. (figure 3) disclose an electro-optic filament or fiber (50) comprising an elongate core (52) within a volume (54) of polarisable material, and an outer member (56) overlying the volume, wherein the core (52) and the outer member (56) are electrically conducting and respectively connectable to electrical potentials to generate a field therebetween (see figure 3 and column 4, lines 8-10); and the polarisable material exhibits an optical effect when subjected to a field and/or a change in the field, the optical effect being visible or otherwise optically detectable externally of the filament or fiber (50) (column 4, lines 1-18); the fiber whose subcomponents are flexible and whereby the filament or fiber is flexible (column 2, lines 48-65).

With respect to claims 2 and 5-7, Jachimowicz et al. (figure 3) disclose an electro-optic filament or fiber, wherein the outer member is optically transmissive and/or transfective (column 2, lines 48-65); wherein the outer member (56) includes a surface adjacent which the volume lies (see figure 3); wherein the outer member surrounds the volume (see figure 3); further wherein the outer member and the volume are adhered one to the other (also see figure 3).

With respect to claim 4, Jachimowicz et al. (figure 4) disclose a filament or fiber, wherein the core (72) is or includes a flexible rod made of a material selected from the list including an electrically conducting metal; an electrically conducting polymer; a polyamide coated with a conducting material; or combinations of two or more aforesaid materials (column 4, lines 46-48).

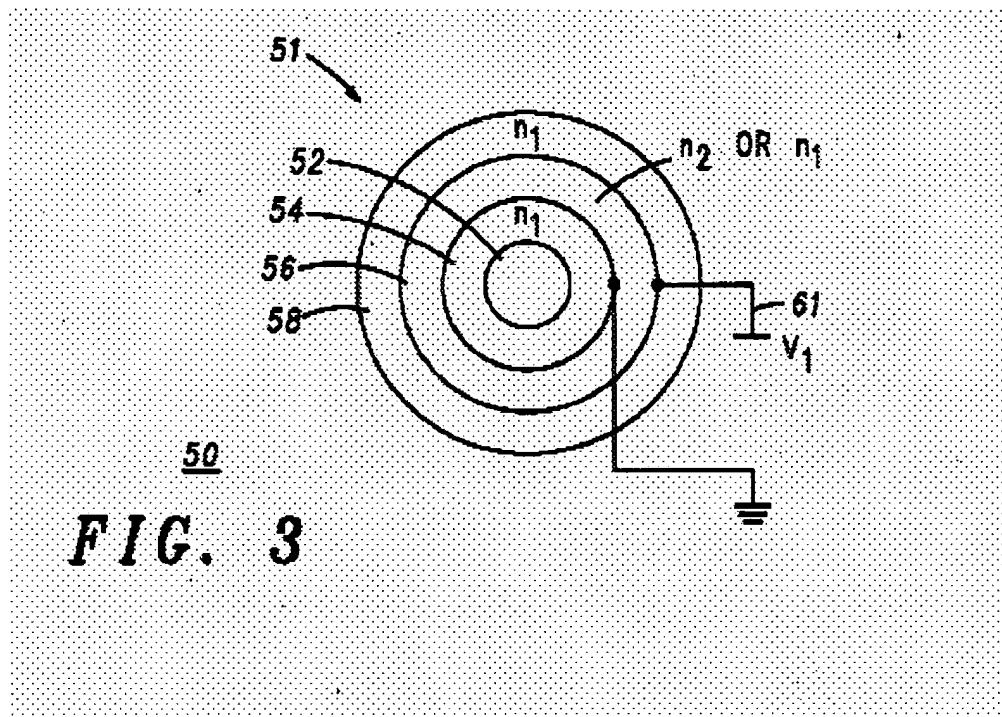
With respect to claim 8, Jachimowicz et al. (figure 3) disclose an electro-optic filament or fiber, wherein the core (52), the volume (54) and the outer member (56) are generally mutually concentric (see figure 3).

With respect to claim 9, Jachimowicz et al. disclose a filament or fiber, wherein the volume polarisable material includes one or more of a liquid crystal material; a microencapsulated, polarisable ink; or a twisting ball" composite (column 4, lines 46-50).

With respect to claim 14, Jachimowicz et al. disclose a filament or fiber, wherein the core (52) and/or the outer member (56) of which is operatively connected to an electrical potential that varies in dependence on the output (column 4, lines 9-18).

With respect to claims 15, 16 and 18, Jachimowicz et al. (figure 3) disclose a structure including one or more filaments or fiber; wherein each the fiber is interlaced with a further fiber.

With respect to claim 17, Jachimowicz et al. disclose a structure including a plurality of fibers, having woven knitted or croched together (column 4, lines 24-26).



Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that

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the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jachimowicz et al. (as cited above).

With respect to claims 10 and 11, Jachimowicz et al. substantially disclose all the limitations of the claimed invention except the volume of polarisable material includes a pigment which is an inorganic phosphor pigment, titanium dioxide or mixture thereof.

However, the volume of polarisable material including a pigment which is an inorganic phosphor pigment, titanium dioxide or mixture thereof is considered to be obvious. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the volume of polarisable material of Jachimowicz's device by the material as claimed for the purpose of providing an optical waveguide with low loss and more stability for coupling to obtain higher efficiency of optical signal transmission. It is also noted that it has been held to be within the general skill of a worker in the art to select a

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known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Allowable Subject Matter

10. Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose or reasonably suggest the filament or fiber, wherein the resistance of the outer member is inhomogeneous as recited in claims 12 and 13.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Piselli (U.S. Patent 6,602,544) discloses a composite fiber.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00 am to 3:30 pm, second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**JENNIFER DOAN
PRIMARY EXAMINER**

JD

April 28, 2006